On-board with the right fire protection

3M™ Novec™ 1230 Fire Protection Fluid safeguards sea-going vessels and river cruise ships
Fire poses one of the greatest dangers on ships. At the same time, space is at an absolute premium. Novec 1230 fluid requires little storage space, is highly efficient and allows the fastest extinguishing time – a combination that makes it the ideal choice for onboard fire protection. The fast-growing Viking river cruise line alone has already equipped about 40 of its ships with the Minimax™ MX 1230 Fire Extinguishing System, using Novec 1230 fluid. And more new vessels in the Rostock-Warnemünde wharf are currently being planned.

Effective fire protection for engine rooms

American tourists in particular enjoy exploring the cultural treasures along the rivers Rhine, Danube and Main on Viking’s ships. Unbeknown to the guests enjoying their colourful vacation is the complex technology operating round-the-clock below deck to ensure the safe operation of the ship. As many as three engine rooms of every river cruise liner are equipped with the MX 1230 fire extinguishing system. This system uses Novec 1230 fluid which stops fires rapidly without causing damage to sensitive equipment or leaving any residue. With a flooding time of around ten seconds and high penetration capacity, the agent takes less than 40 seconds to extinguish a fire after its detection.

Space-saving storage on board

Another advantage is the space-saving potential in an already constricted engine room. Novec 1230 fluid is stored as a fluid and requires only one-third of the space that a CO₂ system usually requires on ships. “This is how we meet all requirements for reliable fire protection on board a river cruise liner, while taking up as little space and weight as possible,” said Olaf Roschinski of fire protection specialists, Minimax. The fluid turns from a liquid to a gaseous state only when discharged through a nozzle thus ensuring rapid action with deep penetration. The product does not cause any damage and leaves no residue, is non-corrosive and non-conductive, and has negligible environmental impact due to its low Global Warming Potential of 1. Unlike CO₂, Novec 1230 fluid is safe for occupied spaces and also provides the widest margin of safety relative to other clean agents such as HFCs and inert gas systems. This makes it an ideal solution for boats and ships where exiting from a protected space may be challenging.

Complex approval procedures

These arguments are winning over more and more ship owners, both operators of inland and sea-going vessels. But beforehand, a whole series of certification
and approval steps had to be completed. International classification bodies, such as Germanischer Lloyd, are responsible for the general authorisation of use in marine applications. Additionally, each class of ship requires a customised authorisation to allow the implementation of the fire protection system according to individual class specifications. The flag state of the respective ship also plays a role. According to Roschinski, the process took about two years from start to finish.

On all the oceans of the world

Today, Viking’s river cruise liners include the MX 1230 fire extinguishing system as standard equipment – as will the new vessels being built by the fast-growing shipping company. In the future, not only the engine room, but also the communication and control centres will be protected. And 3M™ Novec™ 1230 Fire Protection Fluid will not be limited to just inland vessels, but is set to travel the seven seas on board ocean cruisers, container ships and also naval vessels.

For more information visit: www.3M.de/Novec